### Climate Change and Human Health Literature Portal



## For debate: The August sun and the December snow

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#### **Abstract:**

A growing body of evidence claims there is a pivotal role of heat temperatures and summer hot spells in the pathogenesis of exceeding morbidity and mortality among older people. The European well-known "2003 killer hot summer" has boosted many epidemiological and clinical investigations to clarify the pathogenetic correlation between hot spells and elderly mortality with new acquirements in terms of pathophysiology, preventive measures, and therapeutic approaches. However, a quite controversial issue arises: overall elderly mortality is higher in the cold winter compared with summer. The progressive development of preventive, therapeutic, and environmental measures, if targeted with promptness, has generally proven effective in coping with heat temperature, restraining elderly mortality. However, few investigations have been performed dealing with cold, with pioneeristic as well as simplistic approaches, without any conclusiveness or effectiveness in terms of prevention or therapy. Data from recent literature enlist various clinical and environmental approaches in counteracting cold-related mortality in elderly, but lack evidence-based results; a recent European collaborative study reported cold-related elderly mortality as non-negligible, deserving the growing attention of public authorities. We conducted a 4-year survey among 6 different nursing homes located in a seaside city of northern Italy so as to collect epidemiological data on stressful weather spells and elderly mortality. Our results showed that overall elderly mortality in the cold season displayed as significantly high rates as in summer, and the monthly deaths per year of observation showed higher rates in the cold season, addressing it as the most prevalent time period related to mortality in older people. Thus, research in the field is mandatory so as to draw a broader conceptual framework for the stratification of specific population risk profiling and the assessment of adequate preventive and therapeutic measures. To the present knowledge, the lack of pathophysiological understanding, the missing evidence-based data in coping with cold weather-related elderly mortality, together with policy makers' misconceptions is mounting the controversy on this emerging clinical issue. (J Am Med Dir Assoc 2010; 11:449-452)

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#### **Resource Description**

#### Communication: M

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: M

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audience to whom the resource is directed

Policymaker

**Exposure:** M

weather or climate related pathway by which climate change affects health

Temperature

Temperature: Extreme Cold, Extreme Heat

Geographic Feature: M

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Europe

European Region/Country: European Country

Other European Country: Italy

Health Impact: M

specification of health effect or disease related to climate change exposure

Injury

Intervention: M

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Medical Community Engagement:

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: M

populations at particular risk or vulnerability to climate change impacts

Elderly, Low Socioeconomic Status

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# Resource Type:

format or standard characteristic of resource

Research Article

#### Timescale: M

time period studied

Time Scale Unspecified

### Vulnerability/Impact Assessment: №

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content